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ABSTRACT

This report draws on information from ten interdisciplinary programs, including the Interdisciplinary Program for Day Care and Child Development at the University of California, Berkeley (UCB), which are concerned primarily with the training of professionals in services related to child development. Directors and coordinators of all ten programs were interviewed. A summary of the responses is presented and various aspects of the UCB program are compared with those of other programs'. Areas focused on in the survey include: (1) individual program definitions of an interdisciplinary program, (2) dimensions of the student role, (3) faculty roles, (4) community involvement, (5) decision making or authority structure, (6) institutional and organizational support for interdisciplinary programs, and (7) program evaluation. Four tables provide supplementary information about the programs. Table I lists the focus of each program, the location, the number of students, and kinds of degrees obtainable. Table II indicates the disciplines of faculty members in each of the programs surveyed. Table III provides information on program curricula. Table IV lists the origins, planning, departmental base, decision making structure, and funding of all programs. A copy of the interview outline administered to program directors and coordinators is included in Appendix A. (CM)

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SURVEY OF SELECTED INTERDISCIPLINARY PROGRAMS

by

Millie Almy

Report to the Carnegie Corporation
and the Grant Foundation

June, 1978

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SURVEY OF SELECTED INTERDISCIPLINARY PROGRAMS

Members of social science groups, civil rights organizations, educators of young children, political strategists, and politicians all call for legislation under the banner of "child development". "Child development", as currently used, is a broad "egalitarian concept under which puts a new emphasis on community and parent participation in programs and on respect for the cultural heritage and individuality of every child. Too, the term encompasses the increased concern for intervention in the very early years which has sprung from the findings of research in child development".[1] These are the conclusions reached by Senn following interviews with eighty leaders involved in child development over the past half century.

In a parallel account of the historical roots of child development Sears, noting that "Child development as we know it today has all the characteristics of a science", adds "child development was formed by external pressures broadly based on desires to better the health, the rearing, the education and the legal and occupational treatment of children".[2] Child development's "content and its multidiciplinary structure are a product of the demands for social usefulness".[3]

If the conceptualizations of child development are to be applied in socially useful ways, how are they to be transmitted to the professionals who work with children and their parents? One solution is to tailor the child development knowledge to be presented to the presumed needs of the professional group. Thus nutritionists and pediatricians may concentrate on physical development while social workers place more emphasis on emotional and social development, and educators on learning and cognitive development. Sometimes translation leads to oversimplification and even distortion of the basic concepts. Furthermore such a solution may overlook the reality of the "whole" child in a family constellation. It also ignores the fact that professionals with different backgrounds of knowledge may, often unwittingly, work at cross purposes in actual practice.

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1. Milton J.E. Senn, Insights on the Child Development Movement in the United States, Monographs of the Society for Research in Child Development. Serial No. 161, 1975, Vol 40, Nos. 3-4.

2. Robert R. Sears, Your Ancients Revisited: A History of Child Development, in E. Mavis Hetherington et al., (Eds) Review of Child Development Research, The University of Chicago Press, Chicago, 1975, p. 3.

3. ibid., p. 2.

Such considerations have led some of those involved in the training of professionals who work with infants and young children, to solutions that involve instruction from and/or interaction with representatives of one or more other disciplines or professions.

In the fall of 1974, an interdisciplinary program for the preparation of personnel for key positions in day care and related child development services was initiated at the University of California, Berkeley (UCB). The program was directed toward redefined professional roles that would include communication and collaboration across professional specializations and with parents in ways supportive of parental child rearing.

The Program's faculty included members from the Schools of Education, Public Health, Social Welfare, and the Psychology Department. It was funded by the Carnegie Corporation and the Grant Foundation through June 1978. During these four years a total of 43 students, fairly evenly divided by professions--educators, pediatricians and social workers--received fellowships. They participated in the Program's weekly seminars and its field component, receiving credit toward the degrees (MA, MPH, MSW, DSW, or Ph.D.) for which they were enrolled in their own Schools.

Particularly in the first three years of the Program both faculty and students raised many questions about it. What does it mean to be interdisciplinary? Are the gains to be made worth the effort? How do you redefine roles without risking role diffusion? How do you make the seminar content relevant to the three groups of students and the realities of the field? How do you integrate theory and practice? How much should the field be involved in shaping the program? How much contact should faculty have with the field? How much time must go into the field experience for maximum benefit? What kinds of institutional support are necessary to maintain such a program?

By the third year of the Program the faculty and students became aware that they were not alone. Other universities also had programs relating to young children that involved several disciplines and in some instances several professions. The coordinator of the Interdisciplinary Program visited another university with a Council on Early Childhood designed in part to foster interdepartmental collaboration. Another faculty member visited a training program that involved collaboration between pediatricians and developmental psychologists. About the same time the students in an applied

interdisciplinary research training program at another university curious about other programs, conducted a mail survey of participating students. They also arranged for a meeting of students at the biennial conference of the Society for Research in Child Development. There it became clear that many of the questions raised at Berkeley are common to all kinds of interdisciplinary programs.

The faculty of the Interdisciplinary Program for Day Care and Child Development, and particularly the coordinator, felt that it would be illuminating to see how some other programs resolved some of the thorny issues that beset them. Perhaps they had solutions which had not occurred to the UCB faculty. Representatives of the Carnegie Corporation and Grant Foundation agreed. From June, 1977 to May, 1978 the coordinator visited six programs in addition to those previously contacted. This report draws on information from ten programs, including the Interdisciplinary Program for Day Care and Child Development, UCB.

Selection of the programs to be included was somewhat fortuitous. The students who called the meeting at the SRCD conference identified twenty-five programs in "early child development", most of them HEW university-affiliated facilities. Since these focused on mental retardation and handicapped children rather than child development broadly, only two programs are included. Both are research training programs. The remainder of the programs came to attention through word from colleagues or announcements in journals.

Table I shows the programs that are discussed here. It gives the focus of each program, the number of students, and where applicable, the degree they receive.

Table I

INTERDISCIPLINARY PROGRAMS SURVEYED

Name and Date of Origin	Location	Focus	Students Per Year	Degrees Granted
University Council on Early Childhood 1975	University of Pittsburgh	Coordinator. Later: training, research and development.	20+	M.A.
Center for Early Education and Development (CEED) 1973	University of Minnesota	Coordination. Continuing education. Interdepartmental communication re. research. Research translation.	20	none (M.A., Ph.D.)[2]
Interdisciplinary Program for Day Care and Child Development. 1974	University of California, Berkeley	Training. Contribution to provision of day care and child development services.	12	none (M.A., Ph.D., M.S.W., D.S.W.)
Master of Science in Child Development. 1970	University of California, Davis	Training in basic theory and research method.	12	M.S.
Schwartz Graduate Program for Training Directors. 1975	Hebrew University, Jerusalem	Training for direct work children/parents. Staff development. Community organization. Team membership in community center.	20	none (M.A. graduate diploma)

1. Not applicable.
2. Degrees in parenthesis indicate that students involved work for degrees in other programs or departments.

Table I (Cont.)

INTERDISCIPLINARY PROGRAMS SURVEYED

Name and Date of Origin	Location	Focus	Students Per Year	Degrees Granted
Interdisciplinary Doctoral Program on Young Children (IDPCY) 1972	Indiana University, Bloomington	Training in program development, research and evaluation, child development, socio-political issues	8 to 12	Ph.D. Ed.D.
Child Development Fellowship Program - 1971	Children's Hospital, Harvard Medical School, Boston	Training pediatricians to promote understanding of normal child development.	4	none
Research Training Program in Mental Retardation. 1974	Frank Porter Graham Center, University of North Carolina Chapel Hill	Training, Research in mental retardation.	12	none (Ph.D.)
Predoctoral Preparation in Applied Interdisciplinary Research Early Childhood Intervention (PrePAIR) 1976	Pennsylvania State University, University Park	Training. Research in mental retardation.	4-6	none (Ph.D)
The Child in the City Programme. 1976	University of Toronto, Ontario	Research (basic and applied)	0	N.A.

Table 2 indicates the disciplines in each of the programs or departments. Because of the programs' diversity it may be well to indicate in what ways each is seen as comparable to the Interdisciplinary Program for Day Care and Child Development Services. As their arrangement in Table I suggests, some of them are also clearly comparable to one another but others are less so.

Table 2

DEPARTMENTS OR DISCIPLINES OF FACULTY MEMBERS IN PROGRAMS SURVEYED

Department	Program Location									
	Pitt.	Minn.	UCB	UCD	Heb. U.	Ind.	Harvard	UNC	Penn.	U.T.
Anthropology				×						×
Architecture									×	
Biology				×						
Child/Human Development		×		×		×		×		
Education	×		×		×		×		×	
Curriculum		×				×				
Administr.		×								
School/Educ. Psychology		×				×				
Phys. Educ.		×								
Special Educ. Systems Tech.		×				×			×	
Health Related Professions	×									
Law				×						×
Library Infor.	×									
Public Health Maternal and Ch. Health			×							
Public Health Nutrition			×							
Man/Environ.								×	×	
Nursing	×							×	×	
Psychology	×			×	×			×		
Clinical				×			×			
Development.			×				×			
Pediatrics	×			×	×		×	×		×
Psychiatry				×			×	×		×
Social Work	×		×		×		×			
Sociology (family)										×
Urban Geography										×

The first two programs (Minnesota and Pittsburgh have coordinating functions, both within the university and with the community. Although coordination was not specified as a function for UCB it serves somewhat in that capacity. Its primary function, however, is training, as is the case with the four programs (UC Davis, Hebrew University, Indiana and Harvard) listed next on the chart. The following two (University of North Carolina and Pennsylvania State University) are also training programs, but entirely in preparation for research. The final program (Toronto) has no specific training function but is rather a basic and applied research project.

The University of Pittsburgh Council on Early Childhood had, at the time it was visited, no training program in operation. It did sponsor workshops for the larger as well as the academic community. These centered on issues similar to those addressed in the University of California, Berkeley (UCB) program. As Table 2 shows, the faculty members involved came from departments similar to those involved in the UCB program.

CEED, University of Minnesota, also serves a coordinating function. The faculty involved represent a narrower spread than is the case for UCB. CEED also relates, like the UCB program, to a number of projects in the field, including some in day care. One of CEED's continuing education projects, Interdisciplinary Professional Growth Institutes in Early Education and Child Development, includes professionals in education, psychology, medicine and social work. These Institutes are of short duration (one weekend to five weeks), but the interchange among the students resembles the interchange among the UCB Interdisciplinary students. CEED offers no degrees, but it does provide some courses for graduate students. These are not necessarily interdisciplinary, however.

The programs at the University of California, Davis, and at Hebrew University in Jerusalem are both Master's level programs. The positions which their graduates take are roughly comparable to those engaged in by M.A. and possibly M.S.W. graduates of UCB. The strong field component at Hebrew University bears some resemblance to the UCB Interdisciplinary Program's field experience, although the students do not work in teams.

IDPYC, the doctoral program at Indiana University, apart from the research training emphasis it includes, appears to view the professional roles needed for work with young children and parents in ways very similar to those projected by the program at UCB. Its faculty represent a narrower

range of disciplines than is the case at UCB but the students, through individual contracting, have contact with at least as wide a range in courses and field experiences.

The Child Development Fellowship Program at Harvard, although interdisciplinary in its faculty, has only one professional group, pediatricians, as students. The focus is clearly on that one role, although it is by no means the traditional role. The program is very different from the program at UCB except that it does place pediatricians in day care settings. Its experience provides an interesting backdrop against which to view the pediatricians' experience at UCB.

The two remaining training programs, PREPAIR at Pennsylvania State and the University of North Carolina's Frank Porter Graham Center, both have a research and special education focus. Both are, however, located in universities with a tradition of child and human development research and are broadly conceived. Their students' interests were in many respects compatible with those of students in the Interdisciplinary Program at UCB. Both also provide perspective on the organization of an interdisciplinary program within the university structure.

The final program considered, the Child in the City, is not a training program but a research program. However, the issues it addresses--finding better ways of dealing with the situations in cities that affect children--parallel many of the issues addressed in the Interdisciplinary Program at UCB both in seminar and in the field. Furthermore, the researching of real-life problems that demand interdisciplinary solutions, provides an interesting contrast to the seemingly more contrived requirements, for example, placement in a team for three quarters, for interdisciplinary approaches found in some training programs.

With one exception, the program at Hebrew University in Jerusalem, all of the programs listed received visits from the UCB program coordinator. These visits ranged in length from five days at the University of Minnesota, where the coordinator also served as visiting professor in one of the Professional Growth Institutes, to two days at Indiana University, to the major part of a day for all the rest, except the University of Toronto. In the latter instance an interview with the director was completed in part of an afternoon.

In all instances the directors or coordinators of the program were interviewed.[1] In some cases other faculty members and students also participated, usually in separate interviews. The interviews followed a schedule (see Appendix A) that had been developed by the coordinator and her colleagues. In practice it proved to be quite long and at certain points repetitious. Accordingly not all questions were asked in every interview. Although a tape recorder was available, particularly in the early interviews, several respondents indicated that they preferred not to have it used. Hand recording was done throughout the interview. On her return to UCB, the coordinator then wrote a summary of the interview which she submitted to the interviewed director for correction of any factual errors. The summaries were then circulated to the members of the faculty of the UCB Interdisciplinary Program.

A striking feature of all the interviews was the sense of having shared in very similar experiences, despite the variations in program objectives and content. Some of the directors' responses to the request for a visit had foreshadowed this feature when they wrote "I'm sure we have a lot to communicate about" and "We will welcome an opportunity to exchange 'war stories'".

All respondents, directors, faculty, students gave most generously of their time and reflected thoughtfully on the questions. Their assistance is much appreciated.

The discussion that follows highlights those instances where the experience of particular programs provides a useful comparison or contrast to the program at University of California, Berkeley. Accordingly it provides a more selective view of each of the other programs that are included. It begins with their understanding of what it means to be interdisciplinary.

Being Interdisciplinary

Early in the interviews, program directors and others gave their definitions of an interdisciplinary program and indicated whether or not their program could be taken as an example. Most of the definitions were compatible with those suggested in the programs that are closely associated with child or human development institutes or departments,

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1. The director of the program at Hebrew University, when she was in the United States, discussed the program and later responded in writing to the interview schedule.

"people from different disciplines coming together around a common problem, as in the case of human development".

Others added a qualitative dimension

"a program designed to integrate adaptively the strengths from different disciplines in building an educational program"

and

"a program which utilizes skills and knowledge from more than one discipline and enables its students to integrate them".

Despite the fact that all programs make some reference to being interdisciplinary at least in certain specified respects, some directors questioned whether their program might not more accurately be termed multidisciplinary. Another director made an interesting analogy. He compared multidisciplinary efforts to the kind of children's play known as parallel in which children play side by side, often with similar toys, seeming to enjoy one another's company but without any real exchange. In contrast, interdisciplinary efforts resemble children's cooperative play. They involve exchanges of materials and ideas and the course of events is shaped by the interactions of the players.

This same director pointed out that models for interdisciplinary collaboration differ in different professions. In medicine, for example, it may refer to case staffing in which different disciplines contribute their insights and someone, usually a physician, then tries to synthesize. The model that he prefers, applicable to a research program, is one in which the nature of the dependent variables are such as to require input from another discipline. An example would be the study of the effects of illness on child behavior, obviously requiring collaboration between pediatrician and psychologist.

More than one of those interviewed made the point that the most important new concepts now seem more likely to emerge at the interface of disciplines rather than from within a single discipline. Several commented that many current problems in the care and education of young children impinge on several disciplines and call for the skills of different professions.

Most of the individuals interviewed did not specify the model for interdisciplinary collaboration they espoused. Clearly, however, some placed more emphasis on students becoming able to integrate information from different

disciplines while others held to a more collaborative model. The former model seems to imply more hierarchical relationships and the latter greater equality among the professions involved.

Although not always clearly explicated by those interviewed, different assumptions about what it means to be interdisciplinary seem also to be reflected in the ways the programs are planned and implemented. These differences are evident in the conceptualizations of the roles of the students during the period of training and after its completion. They also appear in the expectations for faculty roles, and in the provision or non-provision of a common problem.

Student role. All the programs involved in training have similar notions about the need in the field for professionals with broader knowledge and, in most instances, additional skills, than had been traditional in a given field. They differ in the ways they specify the dimensions of the student role.

The program at UCB developed and used with students a list of competencies, including knowledge and skills, believed to be needed in the provision of day care to support parental child rearing and child development. Students evaluated themselves at the beginning of the program and set the goals they intended to work toward. They reviewed and revised their list midway and used it to assess their progress at the end.

It should be noted that this list of competencies is quite comprehensive. Although the faculty used it in planning the seminars and field experience that constituted the core of the program, it was impossible in the course of a one-year-program to insure that all areas of competency were adequately covered. Students could, and did, work on some of them in course work outside the program.

IDPYC, the program at Indiana University, is also competency-based. In this doctoral program extending over several years in contrast to the single year at UCB, the students work on a contractual system. At the beginning of their program and in consultation with the faculty, they consider the competencies they already have, together with the ones they will need in the positions to which they aspire. They specify the courses, independent study and field experiences they will undertake to develop these competencies and the means by which they will demonstrate their attainment.

The program at Hebrew University, like the program at UCB, a one-year-program, does not explicitly call itself competency-based. Nevertheless it has a very specific set of objectives and an equally specific set of courses and extensive field experience to facilitate students' realization of them. Like the IDPYC and UCB programs, a self evaluation instrument is also used.

The remaining programs, with the exception of the Harvard program, appear to rely more heavily on the students' ability to derive from the courses and other experiences provided, those competencies that will be needed in the positions to which they aspire. In the case of the two research training programs students must function in an interdisicplinary research project in preparation for their own later research. The UC Davis program is somewhat looser in this regard. It assumes that the students will be able to integrate the knowledge acquired during the program and be able to apply it in a position regardless of whether the training year has included specific preparation for it.

In many respects the Child Development Fellowship Program at Harvard is more clearly oriented toward a professional role than are any of the other programs. All of its students are, and will continue to be, pediatricians, but in redefined roles. The notion of redefinition is implicit in the UCB program and also in IDPYC but neither program sees a common role for all its students and neither gives as deliberate training for the redefinition.

The Harvard program begins with a summer in which the pediatricians must divest themselves of their traditional roles. They participate in day care centers where they must fit in as someone other than pediatrician, parent or teacher, and they interview pregnant women. These experiences are frequently painful. In these new settings, the functions that have become part of their perceptions of themselves as pediatricians, such as conducting examinations, making diagnoses, prescribing treatments, are inappropriate. Shorn of such professional role behaviors they must delve into their own personal resources to find ways of conducting themselves that fit the new situations. They begin to look at children and parents from a new stance and exhibit greater readiness to examine the program's didactic content in child development and behavioral research methodology.

Although the Harvard program probably represents the most extreme redefinition of role, all the programs, since they mostly involve professionals with considerable prior experience, require some redefinition. Part of that

redefinition is expected to come from the insights provided by disciplines that have not figured much, if at all, in the students' prior training.

How the students are to gain such insight varies from program to program. Some rely on seminars involving representatives of two or more disciplines, others on various kinds of field experience, or a combination of the two. These are described below. It is clear, however, that whatever stance the program takes, the students carry the major burden of integrating the information they get from the various disciplines.

Students are aware of this responsibility particularly in those programs where the range of disciplines encompassed within the faculty of the program is rather narrow. In the Professional Growth Institutes conducted by CEED, for example, the faculty have chosen to concentrate the substantive content largely in the area of child development. Issues related to social policy are presented by child development specialists mostly psychologists, who happen also to be experienced in government administration and consultation. The faculty are also child development specialists. The interdisciplinary aspects of the program come primarily from the interaction of the students selected to represent such professions as education, social work, pediatrics and nursing.

In both the UC Davis and IDPYC programs students must seek out faculty members in disciplines other than those involved in the core seminar. This has enabled them to develop some special and productive relationships. At Davis faculty from law, pediatrics and psychiatry have become involved in the program as student interests extend in those directions. IDPYC students have sought out faculty members from as diverse fields as nutrition, forensic studies and sociology for assistance in the development of certain competencies, the preparation of one of the monographs they are required to produce, or the development of their theses. However, these students question whether their problems are really very different from what they would be if they had majored in early education and development (the combination of education and psychology which is the core of this program) and minored in some other discipline.

The Penn State students stated explicitly that they had to work out for themselves the interdisciplinary thrust of their training since the faculty

did not attempt to be interdisciplinary. Rather, as their director also indicated, they functioned in multidisciplinary fashion. (It should be noted that at both Penn State and the University of North Carolina, opportunities for "being interdisciplinary" are provided in both research practica and internships).

The concerns students have had in other programs parallel those expressed by the students in the program at UCB, particularly during the first two years. These concerns were typified by the assertion of one trainee "the program was never clear about what an interdisciplinary approach was". For the third year, however, a majority indicated satisfaction with the interdisciplinary aspects of the program. By then the faculty had given considerable thought to those aspects and had changed the program in several ways. These included assigning trainees to interdisciplinary teams in specific community agencies thereby lessening opportunities for them to avoid interdisciplinary collaboration, and assigning faculty members as advisers to the teams. The UCB faculty's experiences verify what others who have examined interdisciplinary programs have asserted.[1] Interdisciplinary work, however rewarding it may be, places special demands on faculty members who attempt it.

Faculty roles. Table 3 details the curricula of the training programs and also includes the courses and other offerings of those with primarily coordinating and research functions. It also shows the number of faculty members responsible for them.

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1. See for example, Hugh G. Petrie, "Do You See What I See? The Epistemology of Interdisciplinary Inquiry", AERA, Educational Researcher, Vol 5, No. 2, February 1976, pp. 9-21, and

M. Gordon Wolman, "Interdisciplinary Education: A Continuing Experiment", Science, Vol 198, November 25, 1977, pp. 800-804.

Table 3

CURRICULA IN INTERDISCIPLINARY PROGRAMS SURVEYED

Location	Theory	Applications
Pittsburgh	Workshops for academic and tristate community.	
Minnesota	Annual Minnesota Round Tables (for child development professionals). Professional Growth Institutes in Early Childhood Education and Development (for other professionals). Courses for graduate students: Consultation in day care (1)[1]. Contemporary programs for young children (team).	Workshops and extension courses. Instructional materials project. Tapes and radio programs for parents. Research reviews directed to practitioners.
U.C. Berkeley	Interdisciplinary Seminar. (5-7) Workshops. Retreats.	Field experience (1-3 days weekly) for 3 quarters where possible in teams.
U.C. Davis	Critical Issues in Human Development (1). Research methods in Human Development (1) Theories of Human Development (1).	Practicum (1)

(CONTINUED)

1. Numbers in parentheses indicate faculty members involved

Table 3 (Continued)

CURRICULA IN INTERDISCIPLINARY PROGRAMS SURVEYED

Location	Theory	Applications
Hebrew University	The Child and the Educational Program Infancy and early childhood (2). Child as individual (1). Day care (1). History of day care (1) and welfare services. Program evaluation (1). The Family (1). Staff Development Selection and Supervision (2). Educational Supervision to Staff and Parents serving as co-teachers (1). The Community Ethnic integration (1) Development of community centers (3). Introduction to community work (1). Administration Community centers: educational leadership (1). Fieldwork seminar (1).	18 hours per week, for 30 weeks. No credit.
Indiana University	Seminar (5) Independent Study. Dissertation Supervision.	Programs practicum. Research practicum. Research or teaching assistantships. Contracted experience.
Harvard University	Child Development Literature (1) Research Seminar (1).	Day care, interview with pregnant women (summer). Rounds and Consultation on wards. Early Childhood Clinic. Research teams (2nd year).

(CONTINUED)

Table 3 (Continued)

CURRICULA IN INTERDISCIPLINARY PROGRAMS SURVEYED

Location	Theory	Applications
University of North Carolina	Program planning and evaluation (1). Seminar in applied investigation (1). Communications in Technical Assistance (1). Developmental seminar in mental retardation (faculty of program and visitors).	Research practicum (10 hours per week.) Summer internships in (for example) Kennedy Center, Institute for Behavioral Genetics, O.C.D., B.E.H.
Pennsylvania State University	Research seminar (1).	Research teams in (for example) N.I.M.H. O.C.D. Center for therapeutic and prosthetic Environment (12 weeks).
University of Toronto		Lecture Series, The Child in the City with guest lecturers. Open to public.

Considering the interdisciplinary thrust of the training programs, it is interesting to note that only three (UCB, Hebrew University and Indiana) have seminars that are team taught. The implied model of instruction for the others appear to be one in which the individual student serves as integrator of the knowledge presented. Except in the case of those training programs where students participate in interdisciplinary research, they have no models for interdisciplinary collaboration. In Berkeley, the faculty members included came from education, maternal and child health, psychology, social welfare, and beginning the second year, nutrition. In Indiana they were from early childhood education and educational or developmental psychology. Hebrew University's pattern of instruction differs from the others in that it has many more courses. Three of these do involve more than one instructor.

A number of factors may contribute to the tendency for most of the instruction in these training programs to be offered by individual instructors. Before considering these factors, however, attention should be given to the possibility that individual instructors can sometimes speak for more than one discipline or may be very skilled in communicating an interdisciplinary view. One might expect this to be the case in those programs that have evolved in departments of human development, or where interdisciplinary research has been a tradition. In such cases, students may or may not derive an understanding of the differing views of the disciplines involved.

One important reason for not providing an interdisciplinary faculty for core seminars is surely the cost. Although this could be pro-rated over the departments involved, the reality is that well-planned team teaching takes about as much, if not more, time than the instructor gives to a course taught alone.

In the case of the program at Berkeley, all of the faculty members, with the exception of the coordinator, continued to carry their customary teaching loads. This is in contrast to the programs in the other universities. Despite this, the UCB core faculty in education, maternal and child health, and for two years in nutrition, and for one and a third year, psychology, attended nearly all sessions. In the fourth year of the program when it was decided to give major responsibility to the faculty members for education the first quarter, maternal and child health the second, and social welfare, the third quarter, faculty attendance continued at a high level. Thus it seems

that another factor in maintaining a truly interdisciplinary stance is the commitment of the faculty.

Faculty commitment and attendance at seminar are not, if the experience at Berkeley is typical, sufficient to insure a truly interdisciplinary approach.

Petrie[1], in discussing interdisciplinary inquiry suggests that "idea dominance" is an important feature of successful interdisciplinary work. A clear and recognizable idea serves as a focus for the work. Such ideas are clearly articulated in some of the programs.[2] At the University of Minnesota the idea of a network of facilitative relationships involving both University (albiet only certain departments, and the community impinging on early education and care seems predominant. At Hebrew University the dominant idea relates to the provision of better services to infants, toddlers and their parents in disadvantaged communities. Indiana University's dominant idea may be said to be a reconceptualization of the role of the early childhood educator, somewhat parallel to the reconceptualization of the role of the pediatrician at Harvard. The research program at the University of Toronto revolves around the idea of the quality of life of children.

At the University of California, Berkeley the dominant idea was the revision of certain professional roles in the promotion of day care and child development services to support parental child rearing. That idea, although it remained focal, was examined and questioned throughout the four years of the program. One persistent question had to do with whether the focus on day care was too narrow to encompass the interests of all three professions involved. Some faculty members felt that the emphasis should shift from day care to the broader child development services. Another persistent question had to do with the overlapping and differentiation of roles, since the early childhood educator's role, in particular, seemed to lack clear differentiation. Related to this was the question of the role functions that the program should address.

Some functions such as curriculum development in the case of the educators, or the diagnosis of physical disorders, in the case of the pediatrician, seemed to belong more clearly to one professional group than to another.

1. op. cit.

2. This is not to say that the programs not mentioned have no dominant idea. It is rather that the questions asked in the interviews did not elicit them.

Even in these examples, however, there is some overlapping, as when the teacher contributes information on a child's physical status or a pediatrician makes suggestions for the health component of the curriculum. Other functions, such as administration, involvement with parents, coordination of services, evaluation, research, consultation and higher education, may belong to the role of any of the professions, although each one may view them differently. In the first years of the program some attempt was made to deal, even if cursorily, with all of these functions. In the fourth year, when the time commitment for field work was lessened, the program focused on consultation, a function that was seen as common to all three professions. Concentration on the single function seemed to sharpen the idea of role revision, at least as far as that single function is concerned.

Other programs may have wavered less from their dominant ideas than did UCB. In one instance, IDPYC, this seems clearly attributable to a long period of planning prior to the initiation of the program. During that period the faculty, on release time, had ample opportunity to lay out their individual perceptions of the directions the program should take and to argue them through to consensus. Such planning time seems essential to the establishment of an effective interdisiplinary program.

The more different the disciplines or professions involved, the greater the need for discussion in which differing ideas are set forth and confronted. Petrie indicates that different disciplines have different cognitive maps (defined as the "paradigmatic and perceptual apparatus used by any given discipline" and including "basic concepts, models of inquiry, problem definition, observational categories, representation techniques, standards of proof, types of explanation and general ideas of what constitutes a discipline".)[1] Wolman says that "communication across different fields requires mastering new languages".[2]

In the University of California, Berkeley program, educators and social workers appeared to see problems in somewhat similar ways. Pediatricians differed from both educatiors and socialworkers. Perhaps the fact that the latter professions both derive theory from the behavioral sciences while pediatrics looks more to the biological sciences is a factor here. Coming to sufficient agreement as to be able to function integratively and supportively

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1. Petrie, p. 16.

2. Wolman, op. cit. p. 803.

not only in seminars but also in field situations can be attributed to several factors. Undoubtedly listening to one another, and to the students in the three professions, in seminar, workshops and student-faculty meetings and retreats played an important part. Contacts with the advisory committee and most especially with the supervisors in the community agencies also contributed a great deal. Especially important, however, were the all-day retreats held two to three times a year, where the faculty met alone, reacting to all their other experiences, coming to terms with differing points of view and planning.

The need for sufficient time for the confrontation of differences as a step in the process of becoming interdisciplinary was highlighted by the director of the Child in the City Program at the University of Toronto. This program is entirely devoted to research. Any students involved are paid researchers. The process of coming to identify with a given problem from an interdisciplinary stance, the director finds, evolves through three phases. In the first phase the individuals fill one another in on the dimensions of the problem as each sees it. Everyone reads a great deal during this phase. Eventually they come to the realization that someone must assume responsibility. Each begins to work alone approaching the problem from his/her own discipline. As the necessity for getting the projects designed and implemented becomes imminent, however, the triviality of a single discipline's attempt to confront the problem becomes obvious. Serious interdisciplinary work begins.

Perhaps a similar process characterizes interdisciplinary collaboration in the development of a training program. Certainly the first and final phases were discernible in the faculty group of the UCB program. For them the problem was not a research issue. It was, rather how to implement the program in a way that would maintain the integrity of each of the three professions involved and at the same time meet the standards for interdisciplinary collaboration that were held by students and field supervisors as well as themselves. It was the field component of the program, intended to provide students with the common problem essential to good interdisciplinary work, that came to present the greatest challenge to the faculty. In the long run it appears to have served also as an integrating force.

Having proposed that the field work undertaken by the students should contribute to the improvement and expansion of day care services, the faculty found themselves needing to know more about what was going on in day care. It became increasingly evident that the necessary knowledge could not be acquired within the walls of the University but demanded a more intimate understanding of the settings in which the students were placed. Such understanding made the student's problems more real and the faculty came to deal more in actualities and less in abstractions. Differences in cognitive maps became more evident and could be dealt with more directly.

A common problem. All of the training programs surveyed make some provision for their students to encounter problems in the "real" world. The nature of that experience varies considerably. (See "applications" column in Table 3). In some instances it does involve more than one discipline.

Although the Early Childhood Council, University of Pittsburgh at present offers no courses, its activities do permit students in the various programs that are represented, opportunities for involvement in the community. Currently, for example, the Council is developing a longterm study of teenage pregnancies, including attention to early care and education. CEED at the University of Minnesota has many ties with the day care and early education community. Students participate in such projects as the development of instructional materials including films and tapes for day care centers, day care staff and parent groups, and the presentation of workshops and roundtables for various groups.

At UC Davis students with counsel from their advisers make their own arrangements for field experience. These vary considerably but include, in addition to participation in the campus Early Childhood Center, work in centers for infants and toddlers, pediatric wards, group foster homes and tutoring in public schools.

At Indiana University the students hold assistantships in the Developmental Training Center, the Institute for Child Study, or the University Preschool. Shorter term field experiences are arranged by the students and vary widely depending on the competencies they wish to develop. Examples are participation

in a well baby clinic, a post partum project for parents in the local hospital and the development of workshops, comparable to those at Minnesota. In contrast to Minnesota, Davis and Indiana, all students in Hebrew University program have similar field work placements in either day care centers or community centers. These placements extend over the year, and although required, receive no academic credit.

At Harvard, as previously described, students have drastically different experiences when placed in day care or when interviewing pregnant mothers. The work they do in the wards and in the Early Childhood Clinics differs from their previous experience less in content than in the interpretations which come from their changing views of child development. Another part of the applied work at Harvard consists of formulating and executing a research project, something which most of the pediatricians contemplate with some trepidation.

Research is the major focus of the programs at Pennsylvania State and North Carolina. In both instances students participate in ongoing research that is of an interdisciplinary nature.

The UCB program also aspired to include some research experience in the students' program. By combining work in an interest aroused in the program with another course or with independent study, students produced small studies. In general, however, research received less emphasis than did the projects undertaken in the community agencies. These agencies are comparable to those used for field placements in the other training programs.

The similarities are apparent in the case of the CEED and IDPYC programs however, the circumstances surrounding placement differ somewhat. CEED projects are planned by CEED, which includes representatives of community agencies and the work is executed under the director of a committee that includes CEED faculty, community representatives and students. IDPYC students are supervised by the person in charge of the teaching or research for which they have assistantships. In addition they contract for other kinds of experience. Contracts include indication of who will supervise and/or the criteria that will be used to judge their performance.

In both these programs, the students' field experience may involve work on problems demanding interdisciplinary collaboration, but there is no requirement that this be the case. Many of the students in IDPYC are associated with the

Developmental Training Center, and have interdisciplinary experiences comparable to that of students in the Pennsylvania State and North Carolina programs.

The UCB program was built around the idea that students would work in teams of educator, pediatrician and social worker, on projects proposed by community agencies. Thus they are given a common problem. The program employed a social worker who was also trained in community mental health to coordinate the work of these projects. Responsibility for supervision rested in the agencies. As the program went on, the coordinator initiated training sessions for these supervisors. The supervisors also met with the faculty members for exchanges regarding needs in the field, clarification of roles and what is meant to be interdisciplinary.

In the first two years of the program, for various reasons, not all students worked in teams. As the values in teaming became increasingly evident, however, team work was emphasized more. Students' interests, as much as possible, were matched to projects and they began the year with a team assignment to a particular project.

For three years a majority of the faculty thought that the expectation for time commitment for all students, like that for social workers, should be three days per week. Since the pediatricians' schedules never permitted them this much time, considerable friction ensued. In the fourth year of the program, the faculty took a more realistic view, reduced expectations to one day per week and sharpened the focus to interdisciplinary consultation on projects proposed by the agencies. This shift, plus the more clearly articulated interdisciplinary understanding of the faculty resulted in a marked reduction in tension.

Decision Making Structure

The director of the Child in the City program drawing on his experience in a Scandinavian center engaged in interdisciplinary work suggests that, in addition to a common problem, good interdisciplinary work requires a clear authority structure with minimal status differentiation. The Berkeley program's experience illustrates this principle nicely. As the faculty and the community agencies clarified their lines of authority in relation to the students and made expectations clearer, the work improved. At the same time,

the perceived status differences between pediatricians on the one hand, and educators and social workers on the other, were clarified, better understood and dealt with more directly. More importantly, perhaps, the time commitment differences were eliminated.

In some of the other programs those interviewed implied that certain problems of status differentiation had arisen. Whether they were not so bothersome as at Berkeley or whether those interviewed were reluctant to discuss them is uncertain. In this connection, the diversity in background and goals of the Berkeley students should be noted. Some came with many and varied experiences in day care, others had none. Some were starting their graduate education, others completing five or more years. Some were unclear about the kinds of responsibilities they might assume after graduation. Others anticipated moving into very responsible administrative roles. In the other programs the differences in background were also great, but professional goals were shared. For example, IDPYC with its highly individualized program appears less concerned about student's experience than about their aspirations. IDPYC accepted one student whose earlier education had been in music. Except for Harvard, however, where only one profession is currently involved, and North Carolina where post doctoral fellowships are available, none of the other programs attempts to include physicians.

If status differentiations are inherently less marked, what about the authority structures in other programs? One question asked all those interviewed was "What is the decision making structure for the program?" Responses varied along four dimensions: the authority resting with those directly or more remotely involved with the program, the role of the students, the role of the director and provision for community input.

All programs are, of course, subject to certain constraints imposed by University structure. Within those constraints most programs appeared to function at least as autonomously as do other instructional programs. There are some exceptions. Pittsburgh which has not as yet initiated any training programs specifically for University students, makes all decisions in a University wide council, which meets monthly. The council acts on recommendations made by smaller committees, each representing several

departments. Decisions for the program at Hebrew University appear to be somewhat similarly constrained by larger committees established by the Schools of Education and Social Work to promote professional training for Community Center workers. CEED at Minnesota, also draws, although not as widely, from several University departments. Its decision making structure is, however, more decentralized than either Pittsburgh or Hebrew University. Many decisions are made by the CEED staff meeting on a weekly basis, but decisions relating to projects that have been accepted are made by the faculty, students and community representatives attached to each project.

Some programs emphasize that a lot of discussion and time go into the decision making process. CEED and IDPYC, as well as UCB have found retreats a useful device for working out agreements and policy. Other programs describe their decision making structures more casually and perhaps devote less time to them.

Provision for student involvement in decision making varies, perhaps being clearest in CEED where students have a well defined role in all projects. IDPYC students shape their own programs with the counsel of a faculty adviser. Policy, however, is clearly defined by the faculty. At UCB students participate in planning the seminars for the second and third quarters. They also participate in certain retreats. Information from those retreats is taken into consideration as the faculty meets alone to shape each year's program. Although the faculty in the UC Davis program ultimately make decisions, students attend meetings including those of the admission, curriculum, placement and colliqum committees, but not that involving evaluation of current students. All the other programs make some provision for student input such as that obtained in course evaluations but most do not have more formal arrangements for student involvement.

Provision for community input also varies considerably. All programs have at least informal channels for communication from the agencies with which their students are involved in the field. Only CEED, UCB and Hebrew University have more formal arrangements. CEED as described earlier, builds community representatives into all its projects and has an advisory committee including representatives from various local and state agencies. This committee is comparable to the UCB Advisory Committee. Hebrew University draws for continuing advice on the committee, consisting of both community and

university people, which established the program. The North Carolina research training program has an advisory committee of researchers but not a specific community advisory committee.

Whether or not a program draws extensively on advice and guidance coming from the community and/or the students, some person or persons ultimately must see that decisions are made and implemented. In some of the programs the program director clearly holds such authority. Those interviewed specifically mentioned the authoritative role of the director in the Indiana, Harvard and North Carolina programs. Such statements implied no usurpation of the power but rather suggested that the individuals succeeded in making the authority structures clear.

Considering the different ways the faculty of interdisciplinary programs see their roles, and organize themselves to tackle different sorts of problems, it is clear that being or becoming interdisciplinary is a complex process. Whether it is a stance that can be readily acquired through training, and whether certain kinds of training are more effective than others in promoting such a stance is unknown. Little is also known regarding the organizational and institutional factors necessary to keep interdisciplinary programs going.

Institutional and Organizational Support for Interdisciplinary Programs

The traditional organization of the University into departments based on disciplines augurs against the establishment of interdisciplinary programs. Faculty promotion and tenure are usually based on performance within a particular discipline. On the other hand, as Wolman notes, "A vigorous program with an outstanding faculty can compete with specialized disciplines to attract good faculty and good students".[1]

The faculty in the program at Berkeley, convinced of the difficulty of establishing a program in which degrees were offered, tried instead to build the Interdisciplinary Program into degrees offered in the three schools. Thus the program involved no disruption of or addition to departmental lines. As Table I indicates this is the pattern followed by most of the training

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1. Wolman, op. cit., p. 803.

programs surveyed. Only the programs at Davis and Indiana assume responsibility for the degrees students receive.

To go outside the departmental structure is, however, to place the program outside the usual structures for financial support. When funds, both within and without the University, are scarce, the program runs the risk of not surviving. The members of the faculty at UCB, as foundation funding came to an end were facing the possible dissolution of the program they had established. They were curious about how other programs concerned with young children had originated and how they fit into the University structure. As Table 4 shows, half of the programs surveyed seem to have originated in the mind of an administrator rather than coming from faculty members. One can ask whether the e programs are any more firmly entrenched in the University structure than are programs lacking such specific support. As far as funding goes, only three of the five programs initiated by an administrator are receiving University funds. Only one of the five programs instigated by the faculty or from outside receives University funds. University funds, of course, provide no necessary guarantee of the success of a program. Wolman comments, "The success of an effort cannot be ensured by an administration, but its demise can be caused by either an administration or a faculty".[1]

Some programs are set up so that they are relatively autonomous, reporting directly to an administrator, rather than through a department. Of the programs surveyed, only 3 as shown in Table 4, have this status. The rest, although "interdepartmental" are in fact administered through a single department.

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1. Wolman, op cit. p. 803.

Table 4

ORIGINS AND ORGANIZATION OF INTERDISCIPLINARY PROGRAMS SURVEYED

Location	Origin	Planning	Departmental Base	Decision Making Structure	Funding
Pittsburgh	Chancellor of University	2 years ongoing	Interdepartmental	Committees and members of council	Through office of Provost
CEED	Dean of Education, Institute of Child Development.	1 year	Interdepartmental (Education)	CEED staff Task oriented project committees. Advisory Committee	Retrenchment funds. External grants.
B.C. Berkeley	Faculty	1 year	Interdepartmental (Education)	Faculty with students, field supervisors, Advisory Committee input.	Foundation grant for fellowships, field coordination, evaluation and materials.
U.C. Davis	Graduate Dean	?	Interdepartmental (Human Development)	Faculty Committee Students attend some.	No special funds.
Hebrew University	Committee from Corporation of Community Centers, Joint Distribution Committee, Government Ministries, Early Childhood Education.	1 year	Interdepartmental (Social Work)	Faculty Executive Committee.	UNICEF grant.
Indiana University	Dean for Academic Affairs	18 months	Autonomous reports to Dean of Academic Affairs	Faculty for policy. Students for programs with faculty as consultants.	University for faculty.

Table 4 (Continued)

ORIGINS AND ORGANIZATION OF INTERDISCIPLINARY PROGRAMS SURVEYED

Location	Origin	Planning	Departmental Base	Decision Making Structure	Funding
Harvard University	Program Director	?	Tangential to Medical School	Director with staff and students.	Foundations. Children's Hospital.
North Carolina	Ongoing research program of Frank Porter Graham Center.	?	Interdepartmental. Autonomous through Health Affairs.	Director, assistant directors. University steering committee. Advisory Committee (national).	University 12%. Federal and other grants.
Penn State	Faculty response to R.F.P.	?	Department of Human Development	Faculty with students.	Bureau of Educationally Handicapped.
Toronto	President of University	1 year ?	Autonomous to President	Director Staff	Hospital for Sick Children Foundation

Just as the fact of being interdisciplinary in most cases does not affect the way a program relates to established administrative structures, it also has little effect on internal decision making structures. However, as indicated earlier, some programs do make more explicit provisions for receiving information from students and the community than do others.

Not all programs specify the involvement of students in their decision making structures, but it is clear that students are more likely to provide information for decision making than are community representatives. Whether the extent of student involvement is in any way related to the newness of the programs or to their interdisciplinary thrust, or different from student involvement in other programs in the same universities is not known.

Evaluation

All of the training programs surveyed came into being in the first half of the decade of the 70's. Students in this decade, like their forerunners in the 60's are frank and forthright, although perhaps less demanding, about their rights to evaluate programs and faculty, as well as to be evaluated themselves. In the present decade, also, funding sources have become increasingly insistent that programs provide tangible evidence of their effectiveness.

One problem for the evaluation of an interdisciplinary program is the question of how interdisciplinary effectiveness differs from the effectiveness expected from the professional whose training has been more traditional. Put another way, what is the nature of the role, toward which the training is directed? The UCB program wrote of training for "key" roles in day care and child development agencies and struggled with the question of how a "key" role could be recognized and what the person who held it needed to know and be able to do. IDPYC, perhaps with comparable intent specified training for "leadership positions requiring an interface of disciplines, in academia or in government or in community".

The UCB program appears to be the only one with a special evaluation component. This is the responsibility of a program faculty member most of whose half-time appointment is devoted to it. The formative procedures she developed included seminar evaluations, quarterly evaluation of seminar sessions

as a whole and of fieldwork. In addition she took extensive notes of all program events. Summative procedures included pre and post tests of knowledge, competency rating scales described earlier, pre and post questionnaires relating to trainee expectations and realization, and follow-up interviews conducted one year after completion of the program. Field supervisors responded to questionnaires and follow up interviews.

As would be expected, all programs evaluate the performance of the students, two specifically including provision for self evaluation and two using competency based devices. IDPYC appears to make the most elaborate provision for student evaluation. The students' adviser reviews the process aspect of the students' performance, keeping an eye on what the student is doing somewhat as in a medical apprenticeship. As far as the students' products are concerned, these, taking the form of three "monographs" (and eventually the dissertation), are reviewed by the core faculty and, as appropriate, faculty from other disciplines. Before the student is advanced to candidacy for the Ed.D. or Ph.D. degree, a faculty member from another University serves as external evaluator of the student's monographs and other products.

Procedures for the evaluation of the programs themselves tend to be informal, although all programs plan for and take account of feedback from students. CEED builds evaluative devices into all its courses and activities, making use of consultation from the University Measurement Services.

Two programs, those at Indiana University and at Harvard, have made use of external evaluators. In the case of IDPYC two such evaluations have been made, one using an outside consultant, the other the Campus Bureau of Educational Studies and Tests. The Harvard program has also called on an outside evaluator. One difficulty with external evaluation is that of making the criteria sufficiently explicit. The faculty may know intuitively when students are performing according to their expectations. However, unless they are able to communicate these expectations clearly, the evaluator may miss some important clues.

The kinds of satisfaction and dissatisfaction expressed by the students in the various programs[1] clearly reflects the differences among the programs.

1. In some instances students were interviewed. In other instances their apparent feelings were reported by the program director.

However, certain evaluations recur often enough to merit consideration as reflections of the interdisciplinary experience. Often, one suspects, students are enthusiastic because the interdisciplinary idea is new, and particularly enthusiastic when the program itself is new. Students, in general, derive satisfaction from each other, particularly when professional backgrounds and experience are varied. They are also enthusiastic about the applied aspects of the programs whether in the community or in research. On the other hand field work also brings with it frustrations and feelings of inadequacy, so that it may be rated positively at one stage and negatively at another. In those programs that permit students considerable freedom to design their own program, that freedom is valued but it also serves as a source of anxiety. In more than one program students indicate that the seeming advantages of a program, such as its interdisciplinary features, or the autonomy for the student, also turn out, at least at certain points, to be disadvantages. Most students also seem to feel pressured by time, as though the programs open up many more possibilities than they feel able to cope with. Another complaint common to several programs is the seeming lack of models, not only among the faculty, but also the field, for the roles they will eventually fill.

The latter concern raises questions about the eventual placement of graduates. Are they being prepared for positions that do not now exist? This question plagued the program at Berkeley particularly in regard to the M.A. graduates in Education, five of whom were hard pressed to find positions. Three moved eventually into appropriately challenging work but two are employed at the same level as prior to their graduate work. Those students graduating in Social Work readily found positions but often with a tenuous relationship to day care. Several factors likely contribute to this situation including the specificity of focus of the program, the organization of day care and the general employment situation in the Bay Area.

Other programs express less concern about placement, noting that their graduates, assisted by the faculty's knowledge of their fields, do find jobs. A common expectation among faculty is that students will, in a sense, remake whatever jobs they find. The students who were interviewed were more apprehensive both about getting appropriate positions and about remaking and redefining roles.

Nothing could speak more cogently to the effectiveness of interdisciplinary programs than evidence that graduates do indeed function differently from their counterparts who were not so trained. Few of the programs surveyed have been in operation long enough to provide significant evidence on this. All programs keep informal contacts with their graduates. The Berkeley program has also interviewed its graduates as soon as they have completed their first year of employment. In general they look on their interdisciplinary experience more favorably then than they did earlier. This is especially true for those who find themselves working in a group of professionals. They note the ways in which their training has sensitized them to different viewpoints and enables them to communicate more effectively. Reports from graduates' employers and colleagues, and possibly clients, all obtained after the graduate has been in the field for a longer period would provide cogent information regarding the efficacy of different kinds of interdisciplinary training.

Conclusion

Concern on the part of the faculty of one program, that at Berkeley, initiated this inquiry into the experience of other interdisciplinary programs similarly concerned with child development. Of the nine other programs surveyed, six have major focus on training, two have additional coordinating functions and a third involves no training. All the training programs conduct seminars and make provision for students to apply their knowledge in the field or in research. Seminars are more often taught by one faculty member than a team and field experience involving the student in an interdisciplinary team seems as often serendipitous as planned. These findings should reassure the faculty of the UCB program. In attempting to provide both team taught seminars and field experience involving participation in an interdisciplinary team in a program for which both faculty and students had minimal time commitment, the UCB faculty's reach may well exceed its grasp.

Equally interesting, however, is the pervasiveness of similar problems among all programs. All programs acknowledge that the traditional ways of preparing professionals for services to children are no longer adequate. All believe that students need information from different disciplines and to a

certain extent skills from different professions. They make different provisions for their students but they face similar problems. These include the integration of theory and practice, the resolution of University and community agency goals, the danger of the dilution of knowledge and the diffusion of roles, the pressure of time and the maintenance of programs as viable entities in the University structures. The programs seem promising and deserving of a closer examination of both their ways of doing things and their problems so that their experience may be used in the future training of professionals for children's services.

Appendix A

INTERVIEW SCHEDULE FOR REPRESENTATIVES OF INTERDISCIPLINARY PROGRAMS

Name and location of program

Coordinator or director

Name of person interviewed

Position in program

What is your definition of an interdisciplinary program?

Do you regard this program as an example?

What are the educational objectives of the program?

What departments or specialties are involved in the program?

Faculty:

number	department	academic status	time allocated to program

Students:

How many applicants are considered a year? How many accepted?

number	department	degree	time allocated to program

How many of the above are on fellowship?

How is the program funded?

Description of the program.

Courses offered. Indicate for each; title, number of credits, number of faculty involved.

To what extent are students involved in the planning and/or execution of these courses?

Field component.

Is course credit given for field work?

Some programs place students in field agencies for an extended period, some provide for brief visits to a variety of agencies, others do both.

For extended placements, what agencies are used?

What are the objectives for the placements?

Do students work alone or in teams?

If teams, what is their composition?

How are students supervised?

How long are the placements?

How many hours a week do students work?

Does the program endeavor to integrate theory and practice? In what ways?

Field component (continued).

Does the program have a research component? Please describe.

Have there been any publications from this program?

Organization of the program.

How and when did the program originate?

Are the individuals involved in the beginning of the program still participating? In what capacities?

Has the program expanded or contracted since its beginning? In what ways?

Organization of the program (continued).

How does the program fit into the University structure? Is its base in a single department or interdepartmental?

How does it affect or benefit other programs?

How does the University administration regard the program? What kinds of support does it offer?

What is the decision-making structure for the program (faculty, faculty-student, committee, steering committee)?

Is there an advisory committee? If so, what agencies and professions are represented?

Operation of the program.

Aside from expansion or contraction, has the program changed much since its inception? In what ways?

Why?

What have been the areas of greatest agreement in the operation of the program, the questions on which consensus is easily reached?

What have been the areas of greatest disagreement?

How have disagreements been resolved?

With regard to the content of the program - topics to be included and ways of presenting them - what have been the areas of greatest agreement?

On what topics have the greatest differences arisen?

Operation of the program (continued).

How have such differences been resolved?

Student placement.

What provisions are made for job or career counselling for students?

Is the program preparing students for jobs that already exist or for jobs that may emerge in the future?

What percent of graduates are finding positions appropriate to their professional training?

What percent of graduates are finding positions that clearly require interdisciplinary skills?

Is there any follow-up of graduates? What kind?

Evaluation.

Does the program have an evaluation component?

What evaluation procedures are used?

If there is a field component does the evaluation include any evaluation of student impact on the agencies in which they are placed?

For which aspect of the program do students express the greatest satisfaction?

For which aspects the greatest dissatisfaction?

Recapitulation.

What do you see as the most important factors in the success of the program?

What factors have jeapordized the program or made its operation difficult?

What do you see as the future of this program?

Recapitulation (continued).

What do regard as the primary reason for attempting interdisciplinary programs?

What do you think is the most important factor in their success or failure?